



**STONY HOLLOW LANDFILL, INC.**  
2460 S. Gettysburg Ave.  
Dayton, OH 45418  
(937) 268-1133  
(937) 267-5110 Fax

December 29, 2016

Ms. Eileen Moran  
Unit Supervisor  
Regional Air Pollution Control Agency  
117 South Main Street  
Dayton, OH 45422

**Re: DIFO Order No. 6 Ambient Air Monitoring – December 26-27, 2016**  
**Stony Hollow Landfill**  
**Facility ID No. 08-57-04-3008**

Dear Ms. Moran:

Stony Hollow Landfill, Inc. (Stony Hollow) contracted with LJB, Inc. (LJB) to perform the ambient air monitoring on the 1 in 6-day schedule as required by the Director's Interim Findings and Orders, dated November 28, 2016. The 24-hour ambient air sampling was performed between December 26-27, 2016 and ALS Environmental performed the USEPA Method TO-15 analysis.

Please find attached to this submittal letter the LJB ambient air monitoring report, which includes the analytical results. Per a review of the analytical results, the measured concentrations within the air samples were below the laboratory reporting limits or the NIOSH RELs.

If you have any questions, please contact the undersigned at (937) 356-6204.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Peter C. Lucas'.

Peter Lucas, P.E.  
District Engineer

cc: Russell Brown, Michelle Ackenhausen - Ohio EPA  
Stony Hollow files



December 29, 2016

Mr. Peter Lucas  
 Waste Management – Stony Hollow Landfill  
 2460 South Gettysburg Avenue  
 Dayton, Ohio 45417

Via email: [plucas2@wm.com](mailto:plucas2@wm.com)

Re: December 26, 2016 ambient air sampling at Stony Hollow Landfill

Dear Mr. Lucas:

On December 26-27, 2016 LJB Inc. collected two 24-hour ambient air samples at the Waste Management Stony Hollow Landfill. The samples included AA-03, collected from inside the north fence line of the landfill, and AA-04, collected from inside the south fence line of the landfill. A map of the sample locations is attached. Sample locations were in accordance with the November 28, 2016 Ohio EPA Interim Findings and Orders for Stony Hollow Landfill. Table 1 contains sample equipment and interval details.

TABLE 1

| SAMPLE NO. | START DATE/TIME     | END DATE/TIME       | START PRESSURE | END PRESSURE | CANISTER NO. | CONTROLLER NO. |
|------------|---------------------|---------------------|----------------|--------------|--------------|----------------|
| AA-03      | 12/26/2016<br>09:25 | 12/27/2016<br>09:25 | -30" Hg        | -5.2" Hg     | 108814       | 109133         |
| AA-04      | 12/26/2016<br>09:55 | 12/27/2016<br>09:55 | -30" Hg        | -6.2" Hg     | 101805       | 101772         |

Weather conditions reported for the sample period by the weather station located at Sinclair Community College are shown in the attached graphs, reproduced from the weather station's data page at <https://www.wunderground.com>.

The completed samples were transported by courier from the LJB offices to ALS Environmental laboratory in Cincinnati, Ohio on December 27, 2016 and were analyzed by EPA Method TO-15 the same day per the one-day turnaround time previously arranged. Table 2 provides the summarized sample results. Only acetone, chloromethane, dichlorodifluoromethane and toluene were detected above laboratory reporting limits; concentrations of all of the detected chemicals were well below the NIOSH RELs for these compounds.

TABLE 2

| ANALYTE                   | AA-01, ppbv | AA-02, ppbv | NIOSH REL, ppbv |
|---------------------------|-------------|-------------|-----------------|
| 1,1,1-Trichloroethane     | < 0.50      | < 0.50      | 350,000         |
| 1,1,2,2-Tetrachloroethane | < 0.50      | < 0.50      | 1,000           |
| 1,1,2-Trichloroethane     | < 0.50      | < 0.50      | 10,000          |
| 1,1-Dichloroethane        | < 0.50      | < 0.50      | 100,000         |
| 1,1-Dichloroethene        | < 0.50      | < 0.50      | 200,000         |
| 1,2,4-Trichlorobenzene    | < 0.50      | < 0.50      | 5,000           |
| 1,2,4-Trimethylbenzene    | < 0.50      | < 0.50      | 25,000          |
| 1,2-Dibromoethane         | < 0.50      | < 0.50      | 45              |
| 1,2-Dichlorobenzene       | < 0.50      | < 0.50      | 50,000          |
| 1,2-Dichloroethane        | < 0.50      | < 0.50      | 1,000           |
| 1,2-Dichloropropane       | < 0.50      | < 0.50      | 75,000          |
| 1,3,5-Trimethylbenzene    | < 0.50      | < 0.50      | 25,000          |
| 1,3-Butadiene             | < 0.50      | < 0.50      | 1,000           |
| 1,3-Dichlorobenzene       | < 0.50      | < 0.50      | 50,000          |
| 1,4-Dichlorobenzene       | < 0.50      | < 0.50      | 50,000          |
| 1,4-Dioxane               | < 1.0       | < 1.0       | NA              |
| 2-Butanone                | < 0.50      | < 0.50      | 200             |
| 2-Hexanone                | < 0.50      | < 0.50      | 1,000           |
| 2-Propanol                | < 1.0       | < 1.0       | 400,000         |
| 4-Ethyltoluene            | < 0.50      | < 0.50      | NA              |
| 4-Methyl-2-pentanone      | < 0.50      | < 0.50      | 50,000          |
| Acetone                   | <b>1.4</b>  | <b>2.0</b>  | 250,000         |
| Benzene                   | < 0.50      | < 0.50      | 100             |
| Benzyl chloride           | < 0.50      | < 0.50      | 1,000           |
| Bromodichloromethane      | < 0.50      | < 0.50      | NA              |
| Bromoform                 | < 0.50      | < 0.50      | 500             |
| Bromomethane              | < 0.50      | < 0.50      | 20,000          |
| Carbon disulfide          | < 0.50      | < 0.50      | 1,000           |
| Carbon tetrachloride      | < 0.50      | < 0.50      | 2,000           |
| Chlorobenzene             | < 0.50      | < 0.50      | 75,000          |
| Chloroethane              | < 0.50      | < 0.50      | 1,000,000       |
| Chloroform                | < 0.20      | < 0.20      | 2,000           |
| Chloromethane             | <b>0.59</b> | <b>0.60</b> | 100,000         |
| cis-1,2-Dichloroethene    | < 0.50      | < 0.50      | 200,000         |
| cis-1,3-Dichloropropene   | < 0.50      | < 0.50      | 1,000           |
| Cumene                    | < 0.50      | < 0.50      | 50,000          |
| Cyclohexane               | < 0.50      | < 0.50      | 300,000         |
| Dibromochloromethane      | < 0.50      | < 0.50      | NA              |
| Dichlorodifluoromethane   | <b>0.55</b> | <b>0.57</b> | 1,000,000       |
| Ethyl acetate             | < 0.50      | < 0.50      | 400,000         |
| Ethylbenzene              | < 0.50      | < 0.50      | 100,000         |
| Freon 113                 | < 0.50      | < 0.50      | 1,000,000       |
| Freon 114                 | < 0.50      | < 0.50      | 1,000,000       |
| Heptane                   | < 0.50      | < 0.50      | 85,000          |
| Hexachlorobutadiene       | < 0.50      | < 0.50      | 20              |
| Hexane                    | < 0.50      | < 0.50      | 50,000          |

| ANALYTE                   | AA-01, ppbv | AA-02, ppbv | NIOSH REL, ppbv |
|---------------------------|-------------|-------------|-----------------|
| m,p-Xylene                | < 0.50      | < 0.50      | 100,000         |
| Methylene chloride        | <b>0.99</b> | < 0.50      | 25,000          |
| MTBE                      | < 0.50      | < 0.50      | 2,000           |
| Naphthalene               | < 0.20      | < 0.20      | 10,000          |
| o-Xylene                  | < 0.50      | < 0.50      | 100,000         |
| Propene                   | < 0.50      | < 0.50      | NA              |
| Styrene                   | < 0.50      | < 0.50      | 50,000          |
| Tetrachloroethene         | < 0.50      | < 0.50      | 100,000         |
| Tetrahydrofuran           | < 0.50      | < 0.50      | 200,000         |
| Toluene                   | <b>1.3</b>  | <b>0.92</b> | 100,000         |
| trans-1,2-Dichloroethene  | < 0.50      | < 0.50      | 200,000         |
| trans-1,3-Dichloropropene | < 0.50      | < 0.50      | 1,000           |
| Trichloroethene           | < 0.20      | < 0.20      | 100,000         |
| Trichlorofluoromethane    | < 0.50      | < 0.50      | 1,000,000       |
| Vinyl acetate             | < 0.50      | < 0.50      | 4,000           |
| Vinyl chloride            | < 0.50      | < 0.50      | 1,000           |

The ALS Environmental laboratory report and chain of custody form are attached. Please let me know if you have any questions.

Sincerely,

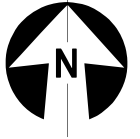
LJB Inc.



Jennifer K. Miller  
Environmental Scientist

Stony Hollow Landfill

Air sample location

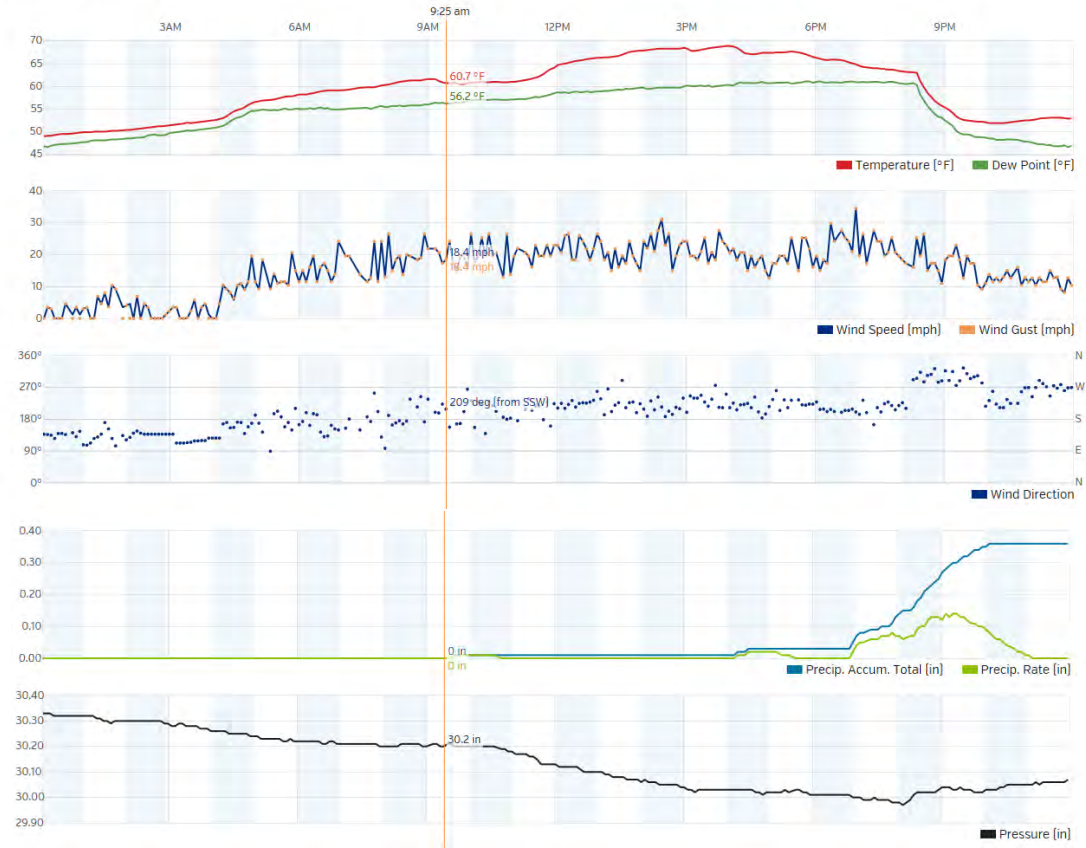


0 200 400 800 Feet

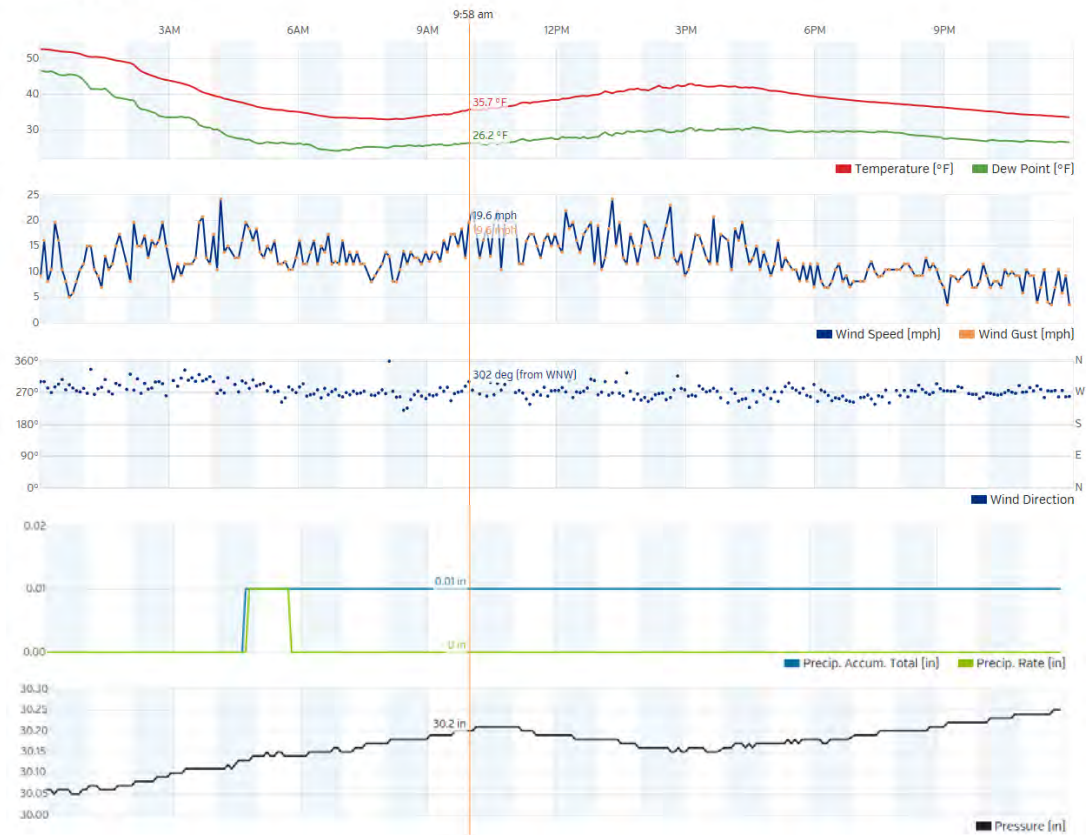
## > Waste Management Stony Hollow Landfill Ambient Air Sample Locations



**Weather History Graph**  
December 26, 2016



**Weather History Graph**  
December 27, 2016





28-Dec-2016

Jennifer Miller  
Waste Management  
2460 S. Gettysburg Rd  
Dayton, OH 45417

Tel: (937) 689-3638  
Fax:

Re: Stony Hollow Landfill

Work Order: **1612877**

Dear Jennifer,

ALS Environmental received 2 samples on 27-Dec-2016 12:34 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 16.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

**Rob Nieman**

Electronically approved by: Rob Nieman

Rob Nieman  
Project Manager

ADDRESS 4388 Glendale Milford Rd Cincinnati, Ohio 45242- | PHONE (513) 733-5336 | FAX (513) 733-5347

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Environmental

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**Client:** Waste Management  
**Project:** Stony Hollow Landfill  
**Work Order:** 1612877

**Work Order Sample Summary**

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| <u>Lab Samp ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Tag Number</u> | <u>Collection Date</u> | <u>Date Received</u> | <u>Hold</u>              |
|--------------------|-------------------------|---------------|-------------------|------------------------|----------------------|--------------------------|
| 1612877-01         | AA-03 Landfill N        | Air           |                   | 12/26/2016 09:25       | 12/27/2016 12:34     | <input type="checkbox"/> |
| 1612877-02         | AA-04 Landfill S        | Air           |                   | 12/26/2016 09:25       | 12/27/2016 12:34     | <input type="checkbox"/> |



**ALS Environmental**

Date: 28-Dec-16

**Client:** Waste Management  
**Project:** Stony Hollow Landfill  
**Sample ID:** AA-03 Landfill N  
**Collection Date:** 12/26/2016 09:25 AM

**Work Order:** 1612877  
**Lab ID:** 1612877-01  
**Matrix:** AIR

| Analyses                       | Result      | Qual | Report Limit  | Units       | Dilution Factor | Date Analyzed       |
|--------------------------------|-------------|------|---------------|-------------|-----------------|---------------------|
| <b>TO-15 BY GC/MS</b>          |             |      | <b>ETO-15</b> |             |                 | Analyst: <b>MRJ</b> |
| 1,1,1-Trichloroethane          | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,1,2,2-Tetrachloroethane      | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,1,2-Trichloroethane          | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,1-Dichloroethane             | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,1-Dichloroethene             | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,2,4-Trichlorobenzene         | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,2,4-Trimethylbenzene         | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,2-Dibromoethane              | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,2-Dichlorobenzene            | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,2-Dichloroethane             | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,2-Dichloropropane            | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,3,5-Trimethylbenzene         | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,3-Butadiene                  | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,3-Dichlorobenzene            | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,4-Dichlorobenzene            | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 1,4-Dioxane                    | ND          |      | 1.0           | ppbv        | 1               | 12/27/2016 02:03 PM |
| 2-Butanone                     | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 2-Hexanone                     | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 2-Propanol                     | ND          |      | 1.0           | ppbv        | 1               | 12/27/2016 02:03 PM |
| 4-Ethyltoluene                 | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| 4-Methyl-2-pentanone           | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| <b>Acetone</b>                 | <b>1.4</b>  |      | <b>1.0</b>    | <b>ppbv</b> | 1               | 12/27/2016 02:03 PM |
| Benzene                        | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| Benzyl chloride                | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| Bromodichloromethane           | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| Bromoform                      | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| Bromomethane                   | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| Carbon disulfide               | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| Carbon tetrachloride           | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| Chlorobenzene                  | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| Chloroethane                   | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| Chloroform                     | ND          |      | 0.20          | ppbv        | 1               | 12/27/2016 02:03 PM |
| <b>Chloromethane</b>           | <b>0.59</b> |      | <b>0.50</b>   | <b>ppbv</b> | 1               | 12/27/2016 02:03 PM |
| cis-1,2-Dichloroethene         | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| cis-1,3-Dichloropropene        | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| Cumene                         | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| Cyclohexane                    | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| Dibromochloromethane           | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:03 PM |
| <b>Dichlorodifluoromethane</b> | <b>0.55</b> |      | <b>0.50</b>   | <b>ppbv</b> | 1               | 12/27/2016 02:03 PM |

Note:

# ALS Environmental

Date: 28-Dec-16

**Client:** Waste Management  
**Project:** Stony Hollow Landfill  
**Sample ID:** AA-03 Landfill N  
**Collection Date:** 12/26/2016 09:25 AM

**Work Order:** 1612877  
**Lab ID:** 1612877-01  
**Matrix:** AIR

| Analyses                        | Result     | Qual | Report Limit | Units       | Dilution Factor | Date Analyzed       |
|---------------------------------|------------|------|--------------|-------------|-----------------|---------------------|
| Ethyl acetate                   | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Ethylbenzene                    | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Freon 113                       | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Freon 114                       | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Heptane                         | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Hexachlorobutadiene             | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Hexane                          | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| m,p-Xylene                      | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Methylene chloride              | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| MTBE                            | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Naphthalene                     | ND         |      | 0.20         | ppbv        | 1               | 12/27/2016 02:03 PM |
| o-Xylene                        | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Propene                         | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Styrene                         | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Tetrachloroethene               | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Tetrahydrofuran                 | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| <b>Toluene</b>                  | <b>1.3</b> |      | <b>0.50</b>  | <b>ppbv</b> | 1               | 12/27/2016 02:03 PM |
| trans-1,2-Dichloroethene        | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| trans-1,3-Dichloropropene       | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Trichloroethene                 | ND         |      | 0.20         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Trichlorofluoromethane          | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Vinyl acetate                   | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| Vinyl chloride                  | ND         |      | 0.50         | ppbv        | 1               | 12/27/2016 02:03 PM |
| <i>Surr: Bromofluorobenzene</i> | 98.3       |      | 60-140       | %REC        | 1               | 12/27/2016 02:03 PM |

## TO-15 BY GC/MS

## ETO-15

Analyst: MRJ

|                           |    |  |      |       |   |                     |
|---------------------------|----|--|------|-------|---|---------------------|
| 1,1,1-Trichloroethane     | ND |  | 2.73 | µg/m3 | 1 | 12/27/2016 02:03 PM |
| 1,1,2,2-Tetrachloroethane | ND |  | 3.43 | µg/m3 | 1 | 12/27/2016 02:03 PM |
| 1,1,2-Trichloroethane     | ND |  | 2.73 | µg/m3 | 1 | 12/27/2016 02:03 PM |
| 1,1-Dichloroethane        | ND |  | 2.02 | µg/m3 | 1 | 12/27/2016 02:03 PM |
| 1,1-Dichloroethene        | ND |  | 1.98 | µg/m3 | 1 | 12/27/2016 02:03 PM |
| 1,2,4-Trichlorobenzene    | ND |  | 3.71 | µg/m3 | 1 | 12/27/2016 02:03 PM |
| 1,2,4-Trimethylbenzene    | ND |  | 2.46 | µg/m3 | 1 | 12/27/2016 02:03 PM |
| 1,2-Dibromoethane         | ND |  | 3.84 | µg/m3 | 1 | 12/27/2016 02:03 PM |
| 1,2-Dichlorobenzene       | ND |  | 3.01 | µg/m3 | 1 | 12/27/2016 02:03 PM |
| 1,2-Dichloroethane        | ND |  | 2.02 | µg/m3 | 1 | 12/27/2016 02:03 PM |
| 1,2-Dichloropropane       | ND |  | 2.31 | µg/m3 | 1 | 12/27/2016 02:03 PM |
| 1,3,5-Trimethylbenzene    | ND |  | 2.46 | µg/m3 | 1 | 12/27/2016 02:03 PM |
| 1,3-Butadiene             | ND |  | 1.11 | µg/m3 | 1 | 12/27/2016 02:03 PM |
| 1,3-Dichlorobenzene       | ND |  | 3.01 | µg/m3 | 1 | 12/27/2016 02:03 PM |
| 1,4-Dichlorobenzene       | ND |  | 3.01 | µg/m3 | 1 | 12/27/2016 02:03 PM |

Note:

# ALS Environmental

Date: 28-Dec-16

**Client:** Waste Management  
**Project:** Stony Hollow Landfill  
**Sample ID:** AA-03 Landfill N  
**Collection Date:** 12/26/2016 09:25 AM

**Work Order:** 1612877  
**Lab ID:** 1612877-01  
**Matrix:** AIR

| Analyses                       | Result      | Qual | Report Limit | Units        | Dilution Factor | Date Analyzed       |
|--------------------------------|-------------|------|--------------|--------------|-----------------|---------------------|
| 1,4-Dioxane                    | ND          |      | 3.60         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| 2-Butanone                     | ND          |      | 1.47         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| 2-Hexanone                     | ND          |      | 2.05         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| 2-Propanol                     | ND          |      | 2.46         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| 4-Ethyltoluene                 | ND          |      | 2.46         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| 4-Methyl-2-pentanone           | ND          |      | 2.05         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| <b>Acetone</b>                 | <b>3.40</b> |      | <b>2.38</b>  | <b>µg/m3</b> | 1               | 12/27/2016 02:03 PM |
| Benzene                        | ND          |      | 1.60         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Benzyl chloride                | ND          |      | 2.59         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Bromodichloromethane           | ND          |      | 3.35         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Bromoform                      | ND          |      | 5.17         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Bromomethane                   | ND          |      | 1.94         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Carbon disulfide               | ND          |      | 1.56         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Carbon tetrachloride           | ND          |      | 3.15         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Chlorobenzene                  | ND          |      | 2.30         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Chloroethane                   | ND          |      | 1.32         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Chloroform                     | ND          |      | 0.976        | µg/m3        | 1               | 12/27/2016 02:03 PM |
| <b>Chloromethane</b>           | <b>1.22</b> |      | <b>1.03</b>  | <b>µg/m3</b> | 1               | 12/27/2016 02:03 PM |
| cis-1,2-Dichloroethene         | ND          |      | 1.98         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| cis-1,3-Dichloropropene        | ND          |      | 2.27         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Cumene                         | ND          |      | 2.46         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Cyclohexane                    | ND          |      | 1.72         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Dibromochloromethane           | ND          |      | 4.26         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| <b>Dichlorodifluoromethane</b> | <b>2.72</b> |      | <b>2.47</b>  | <b>µg/m3</b> | 1               | 12/27/2016 02:03 PM |
| Ethyl acetate                  | ND          |      | 1.80         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Ethylbenzene                   | ND          |      | 2.17         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Freon 113                      | ND          |      | 3.83         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Freon 114                      | ND          |      | 3.50         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Heptane                        | ND          |      | 2.05         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Hexachlorobutadiene            | ND          |      | 5.33         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Hexane                         | ND          |      | 1.76         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| m,p-Xylene                     | ND          |      | 2.17         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Methylene chloride             | ND          |      | 1.74         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| MTBE                           | ND          |      | 1.80         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Naphthalene                    | ND          |      | 1.05         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| o-Xylene                       | ND          |      | 2.17         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Propene                        | ND          |      | 0.861        | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Styrene                        | ND          |      | 2.13         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Tetrachloroethene              | ND          |      | 3.39         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Tetrahydrofuran                | ND          |      | 1.47         | µg/m3        | 1               | 12/27/2016 02:03 PM |

**Note:**

**ALS Environmental**

Date: 28-Dec-16

**Client:** Waste Management  
**Project:** Stony Hollow Landfill  
**Sample ID:** AA-03 Landfill N  
**Collection Date:** 12/26/2016 09:25 AM

**Work Order:** 1612877  
**Lab ID:** 1612877-01  
**Matrix:** AIR

| Analyses                  | Result      | Qual | Report Limit | Units        | Dilution Factor | Date Analyzed       |
|---------------------------|-------------|------|--------------|--------------|-----------------|---------------------|
| <b>Toluene</b>            | <b>5.01</b> |      | <b>1.88</b>  | <b>µg/m3</b> | 1               | 12/27/2016 02:03 PM |
| trans-1,2-Dichloroethene  | ND          |      | 1.98         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| trans-1,3-Dichloropropene | ND          |      | 2.27         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Trichloroethene           | ND          |      | 1.07         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Trichlorofluoromethane    | ND          |      | 2.81         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Vinyl acetate             | ND          |      | 1.76         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Vinyl chloride            | ND          |      | 1.28         | µg/m3        | 1               | 12/27/2016 02:03 PM |
| Surr: Bromofluorobenzene  | 98.3        |      | 60-140       | %REC         | 1               | 12/27/2016 02:03 PM |

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**Note:**

# ALS Environmental

Date: 28-Dec-16

**Client:** Waste Management  
**Project:** Stony Hollow Landfill  
**Sample ID:** AA-04 Landfill S  
**Collection Date:** 12/26/2016 09:25 AM

**Work Order:** 1612877  
**Lab ID:** 1612877-02  
**Matrix:** AIR

| Analyses                       | Result      | Qual | Report Limit  | Units       | Dilution Factor | Date Analyzed       |
|--------------------------------|-------------|------|---------------|-------------|-----------------|---------------------|
| <b>TO-15 BY GC/MS</b>          |             |      | <b>ETO-15</b> |             |                 | Analyst: <b>MRJ</b> |
| 1,1,1-Trichloroethane          | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,1,2,2-Tetrachloroethane      | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,1,2-Trichloroethane          | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,1-Dichloroethane             | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,1-Dichloroethene             | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,2,4-Trichlorobenzene         | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,2,4-Trimethylbenzene         | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,2-Dibromoethane              | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,2-Dichlorobenzene            | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,2-Dichloroethane             | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,2-Dichloropropane            | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,3,5-Trimethylbenzene         | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,3-Butadiene                  | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,3-Dichlorobenzene            | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,4-Dichlorobenzene            | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 1,4-Dioxane                    | ND          |      | 1.0           | ppbv        | 1               | 12/27/2016 02:47 PM |
| 2-Butanone                     | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 2-Hexanone                     | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 2-Propanol                     | ND          |      | 1.0           | ppbv        | 1               | 12/27/2016 02:47 PM |
| 4-Ethyltoluene                 | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| 4-Methyl-2-pentanone           | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| <b>Acetone</b>                 | <b>2.0</b>  |      | <b>1.0</b>    | <b>ppbv</b> | 1               | 12/27/2016 02:47 PM |
| Benzene                        | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| Benzyl chloride                | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| Bromodichloromethane           | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| Bromoform                      | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| Bromomethane                   | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| Carbon disulfide               | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| Carbon tetrachloride           | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| Chlorobenzene                  | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| Chloroethane                   | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| Chloroform                     | ND          |      | 0.20          | ppbv        | 1               | 12/27/2016 02:47 PM |
| <b>Chloromethane</b>           | <b>0.60</b> |      | <b>0.50</b>   | <b>ppbv</b> | 1               | 12/27/2016 02:47 PM |
| cis-1,2-Dichloroethene         | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| cis-1,3-Dichloropropene        | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| Cumene                         | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| Cyclohexane                    | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| Dibromochloromethane           | ND          |      | 0.50          | ppbv        | 1               | 12/27/2016 02:47 PM |
| <b>Dichlorodifluoromethane</b> | <b>0.57</b> |      | <b>0.50</b>   | <b>ppbv</b> | 1               | 12/27/2016 02:47 PM |

Note:

# ALS Environmental

Date: 28-Dec-16

**Client:** Waste Management  
**Project:** Stony Hollow Landfill  
**Sample ID:** AA-04 Landfill S  
**Collection Date:** 12/26/2016 09:25 AM

**Work Order:** 1612877  
**Lab ID:** 1612877-02  
**Matrix:** AIR

| Analyses                  | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed       |
|---------------------------|--------|------|--------------|-------|-----------------|---------------------|
| Ethyl acetate             | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Ethylbenzene              | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Freon 113                 | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Freon 114                 | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Heptane                   | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Hexachlorobutadiene       | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Hexane                    | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| m,p-Xylene                | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Methylene chloride        | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| MTBE                      | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Naphthalene               | ND     |      | 0.20         | ppbv  | 1               | 12/27/2016 02:47 PM |
| o-Xylene                  | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Propene                   | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Styrene                   | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Tetrachloroethene         | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Tetrahydrofuran           | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Toluene                   | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| trans-1,2-Dichloroethene  | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| trans-1,3-Dichloropropene | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Trichloroethene           | ND     |      | 0.20         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Trichlorofluoromethane    | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Vinyl acetate             | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Vinyl chloride            | ND     |      | 0.50         | ppbv  | 1               | 12/27/2016 02:47 PM |
| Surr: Bromofluorobenzene  | 112    |      | 60-140       | %REC  | 1               | 12/27/2016 02:47 PM |

## TO-15 BY GC/MS

## ETO-15

Analyst: MRJ

|                           |    |  |      |       |   |                     |
|---------------------------|----|--|------|-------|---|---------------------|
| 1,1,1-Trichloroethane     | ND |  | 2.73 | µg/m3 | 1 | 12/27/2016 02:47 PM |
| 1,1,2,2-Tetrachloroethane | ND |  | 3.43 | µg/m3 | 1 | 12/27/2016 02:47 PM |
| 1,1,2-Trichloroethane     | ND |  | 2.73 | µg/m3 | 1 | 12/27/2016 02:47 PM |
| 1,1-Dichloroethane        | ND |  | 2.02 | µg/m3 | 1 | 12/27/2016 02:47 PM |
| 1,1-Dichloroethene        | ND |  | 1.98 | µg/m3 | 1 | 12/27/2016 02:47 PM |
| 1,2,4-Trichlorobenzene    | ND |  | 3.71 | µg/m3 | 1 | 12/27/2016 02:47 PM |
| 1,2,4-Trimethylbenzene    | ND |  | 2.46 | µg/m3 | 1 | 12/27/2016 02:47 PM |
| 1,2-Dibromoethane         | ND |  | 3.84 | µg/m3 | 1 | 12/27/2016 02:47 PM |
| 1,2-Dichlorobenzene       | ND |  | 3.01 | µg/m3 | 1 | 12/27/2016 02:47 PM |
| 1,2-Dichloroethane        | ND |  | 2.02 | µg/m3 | 1 | 12/27/2016 02:47 PM |
| 1,2-Dichloropropane       | ND |  | 2.31 | µg/m3 | 1 | 12/27/2016 02:47 PM |
| 1,3,5-Trimethylbenzene    | ND |  | 2.46 | µg/m3 | 1 | 12/27/2016 02:47 PM |
| 1,3-Butadiene             | ND |  | 1.11 | µg/m3 | 1 | 12/27/2016 02:47 PM |
| 1,3-Dichlorobenzene       | ND |  | 3.01 | µg/m3 | 1 | 12/27/2016 02:47 PM |
| 1,4-Dichlorobenzene       | ND |  | 3.01 | µg/m3 | 1 | 12/27/2016 02:47 PM |

Note:

# ALS Environmental

Date: 28-Dec-16

**Client:** Waste Management  
**Project:** Stony Hollow Landfill  
**Sample ID:** AA-04 Landfill S  
**Collection Date:** 12/26/2016 09:25 AM

**Work Order:** 1612877  
**Lab ID:** 1612877-02  
**Matrix:** AIR

| Analyses                       | Result      | Qual | Report Limit | Units        | Dilution Factor | Date Analyzed       |
|--------------------------------|-------------|------|--------------|--------------|-----------------|---------------------|
| 1,4-Dioxane                    | ND          |      | 3.60         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| 2-Butanone                     | ND          |      | 1.47         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| 2-Hexanone                     | ND          |      | 2.05         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| 2-Propanol                     | ND          |      | 2.46         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| 4-Ethyltoluene                 | ND          |      | 2.46         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| 4-Methyl-2-pentanone           | ND          |      | 2.05         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| <b>Acetone</b>                 | <b>4.68</b> |      | <b>2.38</b>  | <b>µg/m3</b> | 1               | 12/27/2016 02:47 PM |
| Benzene                        | ND          |      | 1.60         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Benzyl chloride                | ND          |      | 2.59         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Bromodichloromethane           | ND          |      | 3.35         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Bromoform                      | ND          |      | 5.17         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Bromomethane                   | ND          |      | 1.94         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Carbon disulfide               | ND          |      | 1.56         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Carbon tetrachloride           | ND          |      | 3.15         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Chlorobenzene                  | ND          |      | 2.30         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Chloroethane                   | ND          |      | 1.32         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Chloroform                     | ND          |      | 0.976        | µg/m3        | 1               | 12/27/2016 02:47 PM |
| <b>Chloromethane</b>           | <b>1.24</b> |      | <b>1.03</b>  | <b>µg/m3</b> | 1               | 12/27/2016 02:47 PM |
| cis-1,2-Dichloroethene         | ND          |      | 1.98         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| cis-1,3-Dichloropropene        | ND          |      | 2.27         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Cumene                         | ND          |      | 2.46         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Cyclohexane                    | ND          |      | 1.72         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Dibromochloromethane           | ND          |      | 4.26         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| <b>Dichlorodifluoromethane</b> | <b>2.82</b> |      | <b>2.47</b>  | <b>µg/m3</b> | 1               | 12/27/2016 02:47 PM |
| Ethyl acetate                  | ND          |      | 1.80         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Ethylbenzene                   | ND          |      | 2.17         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Freon 113                      | ND          |      | 3.83         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Freon 114                      | ND          |      | 3.50         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Heptane                        | ND          |      | 2.05         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Hexachlorobutadiene            | ND          |      | 5.33         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Hexane                         | ND          |      | 1.76         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| m,p-Xylene                     | ND          |      | 2.17         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Methylene chloride             | ND          |      | 1.74         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| MTBE                           | ND          |      | 1.80         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Naphthalene                    | ND          |      | 1.05         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| o-Xylene                       | ND          |      | 2.17         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Propene                        | ND          |      | 0.861        | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Styrene                        | ND          |      | 2.13         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Tetrachloroethene              | ND          |      | 3.39         | µg/m3        | 1               | 12/27/2016 02:47 PM |
| Tetrahydrofuran                | ND          |      | 1.47         | µg/m3        | 1               | 12/27/2016 02:47 PM |

**Note:**

**ALS Environmental**

Date: 28-Dec-16

**Client:** Waste Management  
**Project:** Stony Hollow Landfill  
**Sample ID:** AA-04 Landfill S  
**Collection Date:** 12/26/2016 09:25 AM

**Work Order:** 1612877  
**Lab ID:** 1612877-02  
**Matrix:** AIR

| Analyses                  | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed       |
|---------------------------|--------|------|--------------|-------|-----------------|---------------------|
| Toluene                   | ND     |      | 1.88         | µg/m3 | 1               | 12/27/2016 02:47 PM |
| trans-1,2-Dichloroethene  | ND     |      | 1.98         | µg/m3 | 1               | 12/27/2016 02:47 PM |
| trans-1,3-Dichloropropene | ND     |      | 2.27         | µg/m3 | 1               | 12/27/2016 02:47 PM |
| Trichloroethene           | ND     |      | 1.07         | µg/m3 | 1               | 12/27/2016 02:47 PM |
| Trichlorofluoromethane    | ND     |      | 2.81         | µg/m3 | 1               | 12/27/2016 02:47 PM |
| Vinyl acetate             | ND     |      | 1.76         | µg/m3 | 1               | 12/27/2016 02:47 PM |
| Vinyl chloride            | ND     |      | 1.28         | µg/m3 | 1               | 12/27/2016 02:47 PM |
| Surr: Bromofluorobenzene  | 112    |      | 60-140       | %REC  | 1               | 12/27/2016 02:47 PM |

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**Note:**



ALS Environmental

Date: 28-Dec-16

Client: Waste Management

QC BATCH REPORT

Work Order: 1612877

Project: Stony Hollow Landfill

Batch ID: R136389

Instrument ID: VMS4

Method: ETO-15

| MBLK                      |        | Sample ID: blank-R136389 |         |               | Units: ppbv    |               | Analysis Date: 12/27/2016 12:30 PM |      |           |      |
|---------------------------|--------|--------------------------|---------|---------------|----------------|---------------|------------------------------------|------|-----------|------|
| Client ID:                |        | Run ID: VMS4_161228A     |         |               | SeqNo: 1425499 |               | Prep Date:                         |      | DF: 1     |      |
| Analyte                   | Result | PQL                      | SPK Val | SPK Ref Value | %REC           | Control Limit | RPD Ref Value                      | %RPD | RPD Limit | Qual |
| 1,1,1-Trichloroethane     | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,1,2,2-Tetrachloroethane | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,1,2-Trichloroethane     | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,1-Dichloroethane        | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,1-Dichloroethene        | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,2,4-Trichlorobenzene    | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,2,4-Trimethylbenzene    | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,2-Dibromoethane         | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,2-Dichlorobenzene       | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,2-Dichloroethane        | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,2-Dichloropropane       | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,3,5-Trimethylbenzene    | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,3-Butadiene             | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,3-Dichlorobenzene       | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,4-Dichlorobenzene       | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 1,4-Dioxane               | ND     | 1.0                      |         |               |                |               |                                    |      |           |      |
| 2-Butanone                | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 2-Hexanone                | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 2-Propanol                | ND     | 1.0                      |         |               |                |               |                                    |      |           |      |
| 4-Ethyltoluene            | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| 4-Methyl-2-pentanone      | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Acetone                   | ND     | 1.0                      |         |               |                |               |                                    |      |           |      |
| Benzene                   | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Benzyl chloride           | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Bromodichloromethane      | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Bromoform                 | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Bromomethane              | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Carbon disulfide          | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Carbon tetrachloride      | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Chlorobenzene             | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Chloroethane              | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Chloroform                | ND     | 0.20                     |         |               |                |               |                                    |      |           |      |
| Chloromethane             | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| cis-1,2-Dichloroethene    | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| cis-1,3-Dichloropropene   | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Cumene                    | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Cyclohexane               | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Dibromochloromethane      | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Dichlorodifluoromethane   | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Ethyl acetate             | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |
| Ethylbenzene              | ND     | 0.50                     |         |               |                |               |                                    |      |           |      |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Waste Management  
**Work Order:** 1612877  
**Project:** Stony Hollow Landfill

# QC BATCH REPORT

| Batch ID: <b>R136389</b>        | Instrument ID: <b>VMS4</b> | Method: <b>ETO-15</b> |    |   |    |        |   |
|---------------------------------|----------------------------|-----------------------|----|---|----|--------|---|
| Freon 113                       | ND                         | 0.50                  |    |   |    |        |   |
| Freon 114                       | ND                         | 0.50                  |    |   |    |        |   |
| Heptane                         | ND                         | 0.50                  |    |   |    |        |   |
| Hexachlorobutadiene             | ND                         | 0.50                  |    |   |    |        |   |
| Hexane                          | ND                         | 0.50                  |    |   |    |        |   |
| m,p-Xylene                      | ND                         | 0.50                  |    |   |    |        |   |
| Methylene chloride              | ND                         | 0.50                  |    |   |    |        |   |
| MTBE                            | ND                         | 0.50                  |    |   |    |        |   |
| Naphthalene                     | ND                         | 0.20                  |    |   |    |        |   |
| o-Xylene                        | ND                         | 0.50                  |    |   |    |        |   |
| Propene                         | ND                         | 0.50                  |    |   |    |        |   |
| Styrene                         | ND                         | 0.50                  |    |   |    |        |   |
| Tetrachloroethene               | ND                         | 0.50                  |    |   |    |        |   |
| Tetrahydrofuran                 | ND                         | 0.50                  |    |   |    |        |   |
| Toluene                         | ND                         | 0.50                  |    |   |    |        |   |
| trans-1,2-Dichloroethene        | ND                         | 0.50                  |    |   |    |        |   |
| trans-1,3-Dichloropropene       | ND                         | 0.50                  |    |   |    |        |   |
| Trichloroethene                 | ND                         | 0.20                  |    |   |    |        |   |
| Trichlorofluoromethane          | ND                         | 0.50                  |    |   |    |        |   |
| Vinyl acetate                   | ND                         | 0.50                  |    |   |    |        |   |
| Vinyl chloride                  | ND                         | 0.50                  |    |   |    |        |   |
| <i>Surr: Bromofluorobenzene</i> | 9.8                        | 0                     | 10 | 0 | 98 | 60-140 | 0 |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Waste Management  
 Work Order: 1612877  
 Project: Stony Hollow Landfill

# QC BATCH REPORT

Batch ID: **R136389** Instrument ID: **VMS4** Method: **ETO-15**

| LCS                       |        | Sample ID: <b>lcs-R136389</b> |         |               | Units: <b>ppbv</b>    |               | Analysis Date: <b>12/27/2016 11:01 AM</b> |      |              |      |
|---------------------------|--------|-------------------------------|---------|---------------|-----------------------|---------------|-------------------------------------------|------|--------------|------|
| Client ID:                |        | Run ID: <b>VMS4_161228A</b>   |         |               | SeqNo: <b>1425498</b> |               | Prep Date:                                |      | DF: <b>1</b> |      |
| Analyte                   | Result | PQL                           | SPK Val | SPK Ref Value | %REC                  | Control Limit | RPD Ref Value                             | %RPD | RPD Limit    | Qual |
| 1,1,1-Trichloroethane     | 10.79  | 0.50                          | 10      | 0             | 108                   | 58.8-163      | 0                                         |      |              |      |
| 1,1,2,2-Tetrachloroethane | 9.75   | 0.50                          | 10      | 0             | 97.5                  | 60-140        | 0                                         |      |              |      |
| 1,1,2-Trichloroethane     | 9.93   | 0.50                          | 10      | 0             | 99.3                  | 60-140        | 0                                         |      |              |      |
| 1,1-Dichloroethane        | 10.46  | 0.50                          | 10      | 0             | 105                   | 60-140        | 0                                         |      |              |      |
| 1,1-Dichloroethene        | 10.56  | 0.50                          | 10      | 0             | 106                   | 60-140        | 0                                         |      |              |      |
| 1,2,4-Trichlorobenzene    | 7.51   | 0.50                          | 10      | 0             | 75.1                  | 49.3-150      | 0                                         |      |              |      |
| 1,2,4-Trimethylbenzene    | 9.73   | 0.50                          | 10      | 0             | 97.3                  | 50.1-162      | 0                                         |      |              |      |
| 1,2-Dibromoethane         | 10.27  | 0.50                          | 10      | 0             | 103                   | 60-140        | 0                                         |      |              |      |
| 1,2-Dichlorobenzene       | 8.84   | 0.50                          | 10      | 0             | 88.4                  | 41.9-141      | 0                                         |      |              |      |
| 1,2-Dichloroethane        | 10.84  | 0.50                          | 10      | 0             | 108                   | 60-140        | 0                                         |      |              |      |
| 1,2-Dichloropropane       | 10.08  | 0.50                          | 10      | 0             | 101                   | 60-140        | 0                                         |      |              |      |
| 1,3,5-Trimethylbenzene    | 9.98   | 0.50                          | 10      | 0             | 99.8                  | 60-140        | 0                                         |      |              |      |
| 1,3-Butadiene             | 8.85   | 0.50                          | 10      | 0             | 88.5                  | 50.6-140      | 0                                         |      |              |      |
| 1,3-Dichlorobenzene       | 8.92   | 0.50                          | 10      | 0             | 89.2                  | 60-140        | 0                                         |      |              |      |
| 1,4-Dichlorobenzene       | 8.74   | 0.50                          | 10      | 0             | 87.4                  | 55.1-145      | 0                                         |      |              |      |
| 1,4-Dioxane               | 9.92   | 1.0                           | 10      | 0             | 99.2                  | 60-140        | 0                                         |      |              |      |
| 2-Butanone                | 10.53  | 0.50                          | 10      | 0             | 105                   | 60-140        | 0                                         |      |              |      |
| 2-Hexanone                | 10.4   | 0.50                          | 10      | 0             | 104                   | 56.2-162      | 0                                         |      |              |      |
| 2-Propanol                | 10.16  | 1.0                           | 10      | 0             | 102                   | 60-140        | 0                                         |      |              |      |
| 4-Ethyltoluene            | 9.84   | 0.50                          | 10      | 0             | 98.4                  | 60-140        | 0                                         |      |              |      |
| 4-Methyl-2-pentanone      | 10.4   | 0.50                          | 10      | 0             | 104                   | 60-140        | 0                                         |      |              |      |
| Acetone                   | 8.26   | 1.0                           | 10      | 0             | 82.6                  | 60-140        | 0                                         |      |              |      |
| Benzene                   | 10.25  | 0.50                          | 10      | 0             | 102                   | 60-140        | 0                                         |      |              |      |
| Benzyl chloride           | 10.47  | 0.50                          | 10      | 0             | 105                   | 31.9-174      | 0                                         |      |              |      |
| Bromodichloromethane      | 10.86  | 0.50                          | 10      | 0             | 109                   | 60-140        | 0                                         |      |              |      |
| Bromoform                 | 10.65  | 0.50                          | 10      | 0             | 106                   | 60-140        | 0                                         |      |              |      |
| Bromomethane              | 14.25  | 0.50                          | 10      | 0             | 142                   | 60-140        | 0                                         |      |              | S    |
| Carbon disulfide          | 9.99   | 0.50                          | 10      | 0             | 99.9                  | 60-140        | 0                                         |      |              |      |
| Carbon tetrachloride      | 11.36  | 0.50                          | 10      | 0             | 114                   | 60-140        | 0                                         |      |              |      |
| Chlorobenzene             | 9.56   | 0.50                          | 10      | 0             | 95.6                  | 60-140        | 0                                         |      |              |      |
| Chloroethane              | 10.68  | 0.50                          | 10      | 0             | 107                   | 60-140        | 0                                         |      |              |      |
| Chloroform                | 10.65  | 0.20                          | 10      | 0             | 106                   | 60-140        | 0                                         |      |              |      |
| Chloromethane             | 9.27   | 0.50                          | 10      | 0             | 92.7                  | 60-140        | 0                                         |      |              |      |
| cis-1,2-Dichloroethene    | 10.07  | 0.50                          | 10      | 0             | 101                   | 60-140        | 0                                         |      |              |      |
| cis-1,3-Dichloropropene   | 10.87  | 0.50                          | 10      | 0             | 109                   | 60-140        | 0                                         |      |              |      |
| Cumene                    | 10.52  | 0.50                          | 10      | 0             | 105                   | 60-140        | 0                                         |      |              |      |
| Cyclohexane               | 10.28  | 0.50                          | 10      | 0             | 103                   | 60-140        | 0                                         |      |              |      |
| Dibromochloromethane      | 11.12  | 0.50                          | 10      | 0             | 111                   | 60-140        | 0                                         |      |              |      |
| Dichlorodifluoromethane   | 10.57  | 0.50                          | 10      | 0             | 106                   | 60-140        | 0                                         |      |              |      |
| Ethyl acetate             | 10.07  | 0.50                          | 10      | 0             | 101                   | 60-140        | 0                                         |      |              |      |
| Ethylbenzene              | 9.81   | 0.50                          | 10      | 0             | 98.1                  | 60-140        | 0                                         |      |              |      |
| Freon 113                 | 10.54  | 0.50                          | 10      | 0             | 105                   | 60-140        | 0                                         |      |              |      |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Waste Management  
**Work Order:** 1612877  
**Project:** Stony Hollow Landfill

## QC BATCH REPORT

| Batch ID: <b>R136389</b>  | Instrument ID: <b>VMS4</b> |      | Method: <b>ETO-15</b> |   |      |          |   |  |
|---------------------------|----------------------------|------|-----------------------|---|------|----------|---|--|
| Freon 114                 | 10.39                      | 0.50 | 10                    | 0 | 104  | 60-140   | 0 |  |
| Heptane                   | 10.72                      | 0.50 | 10                    | 0 | 107  | 60-140   | 0 |  |
| Hexachlorobutadiene       | 8.05                       | 0.50 | 10                    | 0 | 80.5 | 60-140   | 0 |  |
| Hexane                    | 10.22                      | 0.50 | 10                    | 0 | 102  | 60-140   | 0 |  |
| m,p-Xylene                | 19.79                      | 0.50 | 20                    | 0 | 99   | 60-140   | 0 |  |
| Methylene chloride        | 9.49                       | 0.50 | 10                    | 0 | 94.9 | 60-140   | 0 |  |
| MTBE                      | 11.13                      | 0.50 | 10                    | 0 | 111  | 60.8-151 | 0 |  |
| Naphthalene               | 7.71                       | 0.20 | 10                    | 0 | 77.1 | 53.1-152 | 0 |  |
| o-Xylene                  | 9.83                       | 0.50 | 10                    | 0 | 98.3 | 60-140   | 0 |  |
| Propene                   | 9.23                       | 0.50 | 10                    | 0 | 92.3 | 34.4-139 | 0 |  |
| Styrene                   | 9.91                       | 0.50 | 10                    | 0 | 99.1 | 60-140   | 0 |  |
| Tetrachloroethene         | 9.6                        | 0.50 | 10                    | 0 | 96   | 60-140   | 0 |  |
| Tetrahydrofuran           | 9.36                       | 0.50 | 10                    | 0 | 93.6 | 60-140   | 0 |  |
| Toluene                   | 10.05                      | 0.50 | 10                    | 0 | 100  | 60-140   | 0 |  |
| trans-1,2-Dichloroethene  | 10.13                      | 0.50 | 10                    | 0 | 101  | 60-140   | 0 |  |
| trans-1,3-Dichloropropene | 10.87                      | 0.50 | 10                    | 0 | 109  | 60-140   | 0 |  |
| Trichloroethene           | 10.06                      | 0.20 | 10                    | 0 | 101  | 60-140   | 0 |  |
| Trichlorofluoromethane    | 11.15                      | 0.50 | 10                    | 0 | 112  | 60-140   | 0 |  |
| Vinyl acetate             | 7.27                       | 0.50 | 10                    | 0 | 72.7 | 48.4-145 | 0 |  |
| Vinyl chloride            | 9.22                       | 0.50 | 10                    | 0 | 92.2 | 60-140   | 0 |  |
| Surr: Bromofluorobenzene  | 9.61                       | 0    | 10                    | 0 | 96.1 | 60-140   | 0 |  |

The following samples were analyzed in this batch:

|             |             |
|-------------|-------------|
| 1612877-01A | 1612877-02A |
|-------------|-------------|

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Waste Management  
**Project:** Stony Hollow Landfill  
**WorkOrder:** 1612877

**QUALIFIERS,  
ACRONYMS, UNITS**

| <u>Qualifier</u> | <u>Description</u>                                                        |
|------------------|---------------------------------------------------------------------------|
| *                | Value exceeds Regulatory Limit                                            |
| a                | Not accredited                                                            |
| B                | Analyte detected in the associated Method Blank above the Reporting Limit |
| E                | Value above quantitation range                                            |
| H                | Analyzed outside of Holding Time                                          |
| J                | Analyte detected below quantitation limit                                 |
| n                | Not offered for accreditation                                             |
| ND               | Not Detected at the Reporting Limit                                       |
| O                | Sample amount is > 4 times amount spiked                                  |
| P                | Dual Column results percent difference > 40%                              |
| R                | RPD above laboratory control limit                                        |
| S                | Spike Recovery outside laboratory control limits                          |
| U                | Analyzed but not detected above the MDL                                   |

| <u>Acronym</u> | <u>Description</u>                  |
|----------------|-------------------------------------|
| DUP            | Method Duplicate                    |
| E              | EPA Method                          |
| LCS            | Laboratory Control Sample           |
| LCSD           | Laboratory Control Sample Duplicate |
| MBLK           | Method Blank                        |
| MDL            | Method Detection Limit              |
| MQL            | Method Quantitation Limit           |
| MS             | Matrix Spike                        |
| MSD            | Matrix Spike Duplicate              |
| PDS            | Post Digestion Spike                |
| PQL            | Practical Quantitation Limit        |
| SDL            | Sample Detection Limit              |
| SW             | SW-846 Method                       |

| <u>Units Reported</u> | <u>Description</u> |
|-----------------------|--------------------|
| µg/m <sup>3</sup>     |                    |
| ppbv                  |                    |

Sample Receipt Checklist

Client Name: STONYHOLLOWLANDFILL-DAY

Date/Time Received: 27-Dec-16 12:34

Work Order: 1612877

Received by: MCF

Checklist completed by: Christie F reet 27-Dec-16  
eSignature Date

Reviewed by: Rob Nieman 28-Dec-16  
eSignature Date

Matrices:

Carrier name: Courier

Shipping container/cooler in good condition? Yes  No  Not Present

Custody seals intact on shipping container/cooler? Yes  No  Not Present

Custody seals intact on sample bottles? Yes  No  Not Present

Chain of custody present? Yes  No

Chain of custody signed when relinquished and received? Yes  No

Chain of custody agrees with sample labels? Yes  No

Samples in proper container/bottle? Yes  No

Sample containers intact? Yes  No

Sufficient sample volume for indicated test? Yes  No

All samples received within holding time? Yes  No

Container/Temp Blank temperature in compliance? Yes  No

Temperature(s)/Thermometer(s):

Cooler(s)/Kit(s):

Water - VOA vials have zero headspace? Yes  No  No VOA vials submitted

Water - pH acceptable upon receipt? Yes  No  N/A

pH adjusted? Yes  No  N/A

pH adjusted by:

Login Notes:

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



Ship To: **ALS | Environmental**  
 4388 Glendale Milford Rd.  
 Cincinnati, Ohio 45242  
 Phone: (513) 733-5336  
 Fax: (513) 733-5347

# Field Chain-of-Custody Record

1612877

REGULAR Status  RUSH Status RESULTS REQUIRED BY: (Date) 1 day turnaround  
 CONTACT ALS ENVIRONMENTAL PRIOR TO SENDING SAMPLES  
 OH VAP:  YES  NO BISTR:  YES  NO

Date: Dec. 27, 2016 Purchase Order No.: Per Petrolines  
 Company Name: LJB Inc. Project No.: g Waste Mgt  
 Address: 2500 Newmark Blvd Sampling Site: Stony Hollow Landfill  
Miamisburg OH 45342  
 City State Zip  
 Person to Contact: Jennifer Miller Billing Address (if different): \_\_\_\_\_  
 Email Address: jmilller@ljbinc.com  
 Telephone (937): 259-5048 or 937-689-3638  
 Alternate Contact: \_\_\_\_\_

| Preservation Key # | Sample Type / Matrix Key Abbr. | # of Sample Containers | ANALYSIS REQUESTED |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|--------------------------------|------------------------|--------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                    |                                |                        |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| N/A                | A                              | 1                      | X                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ↓                  | A                              | 1                      | X                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

| ALS Lab ID | Sample ID / Description | Date                      | Time      |
|------------|-------------------------|---------------------------|-----------|
|            | AA-03 Landfill N        | 12/26/2016-<br>12/27/2016 | 0925-0925 |
|            | AA-04 Landfill S        | ↓                         | 0955-0955 |

Notes: \_\_\_\_\_

Preservation Key: 1 - HCl 2 - HNO<sub>3</sub> 3 - H<sub>2</sub>SO<sub>4</sub> 4 - NaOH 5 - Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 6 - NaHSO<sub>3</sub> 7 - NaOH/ZnAcetate 8 - Other 9 - 4°C Matrix Key: A - Air B - Bulk S - Soil W - Water

**Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.**

|                                                       |                                            |                                                   |                                         |
|-------------------------------------------------------|--------------------------------------------|---------------------------------------------------|-----------------------------------------|
| Relinquished By:<br>(Signature) <u>[Signature]</u>    | Time / Date<br><u>1026/<br/>12-27-2016</u> | Received By:<br>(Signature) <u>[Signature]</u>    | Time / Date<br><u>10:27/12-27-2016</u>  |
| Relinquished By:<br>(Signature)                       | Time / Date                                | Received By:<br>(Signature) <u>Christie Freer</u> | Time / Date<br><u>12-27-16<br/>1045</u> |
| Relinquished By:<br>(Signature) <u>Christie Freer</u> | Time / Date<br><u>12-27-16<br/>1234</u>    | Received By:<br>(Signature)                       | Time / Date                             |

| ALS LAB USE ONLY                                                                         |                       |
|------------------------------------------------------------------------------------------|-----------------------|
| COOLER TEMP: _____ °C                                                                    | pH ADJUSTMENTS: _____ |
| COOLING METHOD: NONE COOLER WET ICE DRY ICE ICE PACK                                     |                       |
| DELIVERY METHOD: CLIENT DROP BOX FEDEX UPS<br>STD MAIL PRY MAIL ALS COURIER OTHER: _____ |                       |
| CUSTODY SEALS: NONE COOLER PACKAGE SAMPLES                                               |                       |
| EQUIP. RETURNED: _____                                                                   |                       |